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October 1995

ARK Systems USA

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We Supply OS-9 Software!

ARK Systems USA has been in OS-9 business since 1985. Our commitment is to provide unique system level software products and services with good quality to the market.

This booklet contains a list of the products ARK Systems USA is currently offering. Prices are effective as of the date of publication shown and the front cover. Prices and features of the products are subject to change without notice. Please contact us before ordering.

Also, as we are developing more products and porting existing products to new versions of OS-9 and OS-9000, please feel free to ask for the latest product information.

Terms and Conditions

Licensing

All the products listed in this booklet are subject to their accompanying license agreement, unless otherwise noted. Some products require prior signing on the license agreement; refer to each product's explanation.

If you wish special arrangements including quantity discounts for those products that do not list quantity price schedules, please feel free to contact us.

Prices

Prices are per-copy in U.S. dollars for purchases directly made from ARK Systems USA, unless otherwise noted. Quantity discounts apply to single orders. California residents must add applicable state sales taxes, unless tax exempt request is provided with a valid state account numbers and an authorized signature. Foreign distributors may carry different prices. Contact your nearest distributor listed in the next page.

Orders and Inquiries

Order are accepted by fax with signatures of authorized personnels; backup copies by mail are encouraged. No orders by e-mail are accepted.

Inquiries and questions by e-mail are most encouraged for the quickest attention and responses; send your messages to arkusa@rahul.net. Fax messages are also welcomed. Telephone inquiries are least encouraged.

Terms

Orders must be prepaid. Purchase orders from Fortune 500 companies, government institutions, schools, and customers with frequent purchases and good payment histories are also accepted upon approval. Payment must be made within net 30 days from shipment.

Shipping

Orders are normally shipped within 5 business days from receipt of order or prepayment. There are choices of the carrier:

US 1st Class Mail (local orders only)	Flat rate \$4.00
US Priority Mail (domestic orders only)	Flat rate \$4.50
International Express Mail	Actual cost
Federal Express (domestic and international)	Actual cost if prepaid, or provide your FedEx account to charge.

"Electronic shipment" by e-mail is available if you are in a rush and prepay the whole amount. Only the distribution disk images can be shipped electronically and manuals and other materials, as well as the physical media are still shipped in conventional ways.

If a special procedure is required for customs clearance and/or other purposes, our normal obligation is to amend the commercial invoice as instructed by you. The F.O.B. point is Santa Clara, California, U.S.A.

Payment

Payments are accepted by check or wire transfer. Checks must be drawn at U.S. financial institutions and payable to ARK Systems USA. You are responsible for all the incurring fees such as remittance charges. Besides, wire transfers under \$3,000 are subject to an additional fee of \$10 per transfer to cover our bank processing fees. Charge cards and CODs are *not* accepted. Ask for our bank account information when placing an order.

Media

Unless otherwise requested, all products are shipped on 38U0 floppy disks, Microwave's standard 3.5" floppy disk format for OS-9 products. We can produce virtually any media format for free of charge, except for tape cartridges which incur additional charges. Mention your desired media format, preferably in Microwave's media code.

Compatibility

For supported operating system versions and other software and hardware requirements, refer to each product's explanation.

Contacts

ARK Systems USA
P.O. Box 23, Santa Clara, CA 95052-0023 U.S.A.
Phone: +1(408)244-5358 Fax: +1(408)244-5395
Internet: arkusa@rahul.net CIS: 74464, 1751

Denmark

Danelec Electronics 2969-0511

Germany

Datentechnik Reischke 431-805293

Japan

Osque Systems 03-3220-0384

Sweden

Alvsjo Data 08-868444

Switzerland

Spectralab 01-715-3807

U.K.

Galactic Industrial 091-3848343

Snowtop Computers 0582-451084

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OEM Products

OEM products require porting by the customers for their particular hardware platforms. ARK Systems USA itself does not provide porting services. Unless otherwise noted, a "PortPak" does not include licenses for the subsequent binary copies; they must be purchased separately.

The prices shown here are for OEM licensees only; end may users expect different prices and/or different price schedules. Ask your system supplier.

FMF - Flash Memory File Manager (OS-9/68K)

Features

FMF implements complete file systems on flash memory and similar devices. Access to the files on an *FMF* device is virtually identical to that of RBF (Random Block File Manager) with a few minor exceptions due to the nature of flash memory devices. In fact, you can use most of the popular OS-9 utilities such as *DIR* and *LIST* in the same way as you would do on RBF (disk) files.

One might think RBF's "RAM disk" is good enough for flash memory. Not true: unlike magnetic storage devices and regular RAM, flash memory devices usually do not allow overwriting existing data unless the data block is explicitly and entirely erased. Therefore, *FMF* employs a different free space management mechanism from RBF's. *FMF*'s data allocation unit sizes are much smaller than RBF's and therefore less space is wasted on the quasi write-once device.

FMF currently sells only in the form of OEM licensing. An OEM licensee (usually a hardware manufacture or a system integrator) must port the *FMF* device driver from the reference device driver source code to their specific hardware. An end user can obtain an *FMF* package with a customized device driver from the hardware supplier.

Porting the *FMF* device driver is very easy. Essentially, only three custom functions are required: read so many bytes from a logical address, write so many bytes from a logical address, and erase the device. *FMF* allows booting the operating system from an *FMF* device as well.

Requirements

OS-9/68K V2.4 or V3.0, V3.2 C Compiler or Ultra-C Compiler V1.1

Prices

PortPak	Includes source code necessary for porting device driver	\$2,450.00
Full Source Code	Addition of source code of file manager and other utilities	+\$2,450.00
Object Code	Per-copy prices	\$195.00
		\$135.00
		\$105.00
		\$68.00
		\$50.00
		Qty. 400-999 \$34.00
		Qty. 1000- \$20.00
		+\$4,900.00
Unlimited Object	Unlimited number of object	\$30.00
Tech/Port Manual	Additional technical and port.	Qty. 1-9 \$18.00
User's Manual	Additional user's manual	Qty. 10- \$15.00

**PRELIMINARY
NOT FINALIZED**

Notes

This product requires a license agreement signed prior to sale.

Available in 1Q/96.

IBF - IEEE488 Interface Bus File Manager (OS-9/68K)

Features

IBF provides file manager level support of the IEEE488 (GP-IB) interface bus devices. *IBF* implements basic message transfer functions through the regular *read()* and *write()* functions by hiding the underlying protocols such as talker and listener assignments. The IEEE488 specific functions such as *Service Request* and *Serial Poll* are supported through unique system calls. Application programs written in "C" can access these functions through the accompanying library functions.

IBF comes with the system modules such as the file manager, device driver, and device descriptor, the C library and header files, and the stand-alone executable programs for debugging, as well as complete documentation. Application programs written in "C" can handle IEEE488 devices as easily as other OS-9 file devices.

IBF sells only in the form of OEM licensing. An OEM licensee (usually a hardware manufacture or a system integrator) must port the IBF device driver from the reference device driver source code to their specific hardware. An end user can obtain an IBF package with a customized device driver from the hardware supplier.

IBF supports the two popular IEEE488 interface LSIs: NEC's uPD7210 and TI's TMS9914A. Porting an *IBF* device driver, though it is written entirely in the assembly language, is very easy. It usually takes only a few days (or even hours), not weeks.

Requirements

OS-9/68K V3.0, Ultra-C Compiler V1.1

Prices

PortPak/9914	Includes source code necessary for porting TMS9914A device driver	\$2,100.00
PortPak/7210	Includes source code necessary for porting uPD7210 device driver	\$2,100.00
PortPak/Both	Includes source code of both device drivers	\$3,150.00
Full Source Code	Addition of source code of file manager and other utilities to above	+\$2,100.00
Object Code	Per-copy prices	
	Qty. 1-3	\$195.00
	Qty. 4-9	\$135.00
	Qty. 10-39	\$105.00
	Qty. 40-99	\$68.00
	Qty. 100-399	\$50.00
	Qty. 400-999	\$34.00
	Qty. 1000-	\$20.00
Technical Manual	Additional technical manual	\$30.00
Porting Manual	Additional porting manual	\$10.00
User's Manual	Additional user's manual	
	Qty. 1-9	\$18.00
	Qty. 10-	\$15.00
Upgrade to 1.3.x	PortPak upgrade from previous versions to V1.3.x	\$420.00

Notes

This product requires a license agreement signed prior to sale.

A free booklet with more detailed information is available upon request.

PTF - Pseudo Terminal File Manager (OS-9/68K)

Features

PTF provides a means of inter-process communications very similar to Unix's pseudo tty (pty). *PTF* is actually superior to pty because it dynamically creates new pseudo terminal devices, so that the number of pseudo terminals is virtually unlimited and does not need to be pre-determined. *PTF* is particularly useful for implementing multi-task applications on top of existing terminal-based applications. These applications could include GUI front-ends, multi-window systems, automated scripting and logging, etc.

Requirements

OS-9/68K V2.4 or V3.0, V3.2 C Compiler or Ultra-C Compiler V1.1

Price

All source code files with unlimited binary distribution license

\$995.00

Notes

Available in 1Q/96.

SCF C-Pack (OS-9/68K)**Features**

SCF C-Pack provides "novice" OS-9 system programmers with a quick way to write their own interrupt-driven SCF device drivers in "C." All the "template" source code files are included. If you have written serial device drivers on other operating systems but not on OS-9, and your dead line is next week, your *only* choice is here.

SCF C-Pack also provides some useful ways to solve OS-9 specific problems such as system stack overflow (famous with versions of OS-9 prior to V3.0) and multiple interrupt vectors. Even if you have ported the device drivers from Microware's Port Pack, you may wish to cut next project's development time dramatically by using a high level language (C).

Requirements

OS-9/68K V2.4, V3.2 C Compiler

Price

All source code files with unlimited binary distribution license and 90-day tech support

\$695.00

Notes

SCF C-Pack is not written for a particular hardware device (LSI). You must port SCF C-Pack for your own hardware.

Plug-and-Play File Managers**DDF - /dev Device File Manager (OS-9/68K)****Features**

DDF implements simple mapping from the */xxx* device names in OS-9's style to Unix style */dev/xxx* device names. *DDF* also provides a few more nifty things as listed below.

- | | |
|-----------------------|---|
| Device name aliasing: | Your /d0 disk drive can be accessed as <i>/dev/fd0</i> , <i>/dev/fd0.1440</i> , <i>/dev/fd0.hd</i> , etc. without sacrificing device table entries. |
| <i>/dev/tty</i> : | This duplicates your process's standard error path. |
| <i>/dev/console</i> : | This opens the system console device described in the "init" module. The <i>/dev/console</i> path is not blocked even when another process is reading from the same device, therefore it is useful to dump system log messages. |

Requirements

OS-9/68K V2.4

Price

TBA

Notes

Coming soon.

KMF - Kernel Memory File Manager (OS-9/68K)

Features

KMF allows to access the system memory in a read-only manner. By using “*dump*” and other OS-9 utilities with *KMF*, you can determine the system memory in a variety of ways without invoking a debugger. In the plain mode, *KMF* simply reads the system memory from the specified address so that “*dump /kmem abcd*” reads the system memory from the address 0xabcd; In the memory module mode, *KMF* is aware of memory modules and “*dump /kmem/mod*” is very useful for browsing a memory module without bothering to save the module into a file. As you might guess, “*dir /kmem*” results similarly to “*mdir*.”

Requirements

OS-9/68K V2.4

Price

TBA

Notes

Coming soon.

XSCF - SCF with Line Editing Enhancement (OS-9/68K)

Features

XSCF enhances SCF (Sequential Character File Manager)’s line editing functions. Unlike line editing enhancements implemented in “enhanced shells,” *XSCF* works at the file manager level, and therefore has additional advantages such as recalling old lines across parent and child shells and that any application take advantage of *XSCF*’s enhanced line editing.

XSCF supports the following line editing functions:

- Move cursor to the right/left character;
- Move cursor to the right/left word;
- Move cursor to the top/end of line;
- Replace the character at cursor;
- Insert a character at cursor;
- Remove the character at/before cursor.

(Not all terminals can implement all the cursor functions.)

XSCF comes with the file manager and a sample device descriptor, as well as a utility that maps your particular terminal’s keys to *XSCF*’s line editing functions. Installing *XSCF* is just plug-and-play: You don’t need to rebuild the system boot file or you don’t even need to reboot of the system. Loading the necessary modules and starting *XSCF* with a utility program will do the job.

Requirements

OS-9/68K V2.4

Price

\$60.00

Price**\$60.00****Notes**

Currently, *XSCF* is not compatible with log-in's over networks (NFS and TCP/IP). Inquire for updates.

XSCF is not compatible with G-Window.

Utility Programs

devTOOL - A Fully Loaded Tool Box (OS-9/68K)

Features

devTOOL consists of more than 80 neat utility programs that make your life on OS-9 easier. The utilities cover disk editor, file undelete, process watcher, remote machine control, and many many more.

Requirements

OS-9/68K V2.4

Price**\$395.00****Notes**

Available now.

Disk Squeezer - RBF Disk Defragmentation Program (OS-9/68K)

Features

Disk Squeezer reorganizes RBF disk contents by repeatedly moving files on the disk. A fragmented disk may cause problems such as unexpandable files (due to too much internal fragmentation) and slower file access performances due to frequent disk head travels. *Disk Squeezer* fixes these problems and eventually prevents future disk and file fragmentation.

Disk Squeezer's operation is very safe with respect to accidental data corruption and loss during the squeezing process. This is because *Disk Squeezer* uses plain copy and delete operations to move files and does not attempt to fool or bypass the RBF file system. A special patched version of the RBF file manager is used to move files efficiently. This RBF is generated in the installation process.

Disk Squeezer comes with utilities that display disk and file fragmentation.

Requirements

OS-9/68K V2.4

Price**\$295.00****Notes**

Available now.

Requirements

OS-9/68K V2.4, SrcDbg V1.2, 2nd terminal or window

Price

\$60.00

Notes

Available now.

OS9MAX - OS-9/68K↔DOS File Transfer Utility

Features

OS9MAX is a set of utilities that run under MSDOS and transfer files between DOS and OS-9. Virtually all the normal disk/file handling operations (plus many more) that OS-9 can do, including disk formatting, are possible on a regular PC. Text formats are automatically converted between the two operating systems.

OS9MAX handles not only floppy disks and other magnetic media but also PCMCIA 2.0/JEIDA 4.1 style memory cards with OS-9 disk image.

Requirements

MSDOS 3.11 and up with or without MS Windows 3.1

Price

\$580.00

Notes

Available now.

UD-Cache - RBF Caching Driver (OS-9/68K)

Features

UD-Cache is a plug-and-play add-on disk cache driver. *UD-Cache* dramatically improves disk access performance by keeping frequently accessed disk data in the system memory. *UD-Cache* supports both write-through and write-behind caching modes. Caching and its mode can be selected individually for each device. *UD-Cache* can work with any existing RBF (disk) device. Installation is quite easy: Neither system re-generation nor rebooting is needed; just load the necessary modules into memory and execute the *mount* command. The *unmount* command stops caching of the specified devices.

Requirements

OS-9/68K V2.4

Price

\$149.00

Notes

Available now.

SCF C-Pack

SCF Device Driver Development Kit For OS-9/680x0

SCF C-Pack is a software kit to help build custom SCF (Sequential Character File Manger) device drivers in the C language. SCF C-Pack includes assembly code program pieces necessary for interfacing your "C" device driver code to the operating, including stack alternation code that prevents the famous system stack overflow problem often observed in C device drivers. A simple sample device driver "skeleton" code is included as well.

Who Should Buy SCF C-Pack?

- If you need to proceed a quick project including an SCF device driver;
 - If you have written device drivers in C for other operating systems but you are new to OS-9;
 - If you have written application programs for OS-9 but no device drivers. You can write your own SCF device driver for particular hardware with particular functionalities on top of SCF C-Pack without much worrying about the oddness of the operating system interface.
-

What Do You Get?

- All the necessary "template" source code files for building a custom SCF driver using interrupts.
 - A royalty-free unlimited binary distribution license: You can give, sell, and distribute any quantity of copies of the compiled binary program(s) that is derived from SCF C-Pack without paying royalties (source code is not distributable)
 - A 90-day free technical support by e-mail and fax.
-

What Do You Need?

- OS-9 V.2.4 operating system
 - V3.2 C Compiler or Ultra-C Compiler
 - OS-9 I/O Technical Manual
-

How Much Do You Pay?

- \$695.00 US (customers outside U.S. contact nearest distributor).
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ARK Systems USA P.O. Box 23, Santa Clara, CA 95052-0023 USA

Phone: +1(408) 244-5358/Fax: +1(408) 244-5395, Internet: arkusa@rahul.net, CIS:74464,1751.

- SCF C-Pack is not written for a particular hardware device (LSI). You must customize it for your particular hardware.

POWER•SOFTWARE•FOR•OS-9

ARK Systems USA P.O. Box 23, Santa Clara, CA 95052-0023, USA. Phone: +1 (408) 244-5358/Fax: +1 (408) 244-5395 arkusa@rahul.net

XSCF Neatly Enhances SCF's Line Editing.

Tired of using dumb SCF? How many times have you envied DOS? Maybe thousands... One of common complaints about OS-9's user interface is its lousy teletype-style command line entry: If you mistype "vpy" when you copy a file in a directory /dd/USERS/ARK/PROG/UTILS/RELEASE/TOOLS/PROD/XSCF/V1.1 to /d0/USERS/ARK, you have to back up all the way to the top (you may use ^X) and retype the whole command line. How painful!

Use XSCF's advanced line editing functions. With XSCF, you can move cursor back and forth to any position in the current entry line to overwrite or insert characters. The "associative recall" function remembers and retrieves past entries with minimal key strokes. We bet you'll become unable to live without it in a minute! If your terminal has special keys such as arrows, a sophisticated installation program will automatically generate necessary data to utilize them fully.

XSCF installs on any OS-9 system in a snap. Thanks to its implementation as a file manager. XSCF works with *any program* on *any OS-9 system*. No need of program recompilation or messy system generation; copying a few files and executing a command changes your typing habit. XSCF is 100% compatible with SCF (Sequential Character File Manager); in fact, it shares tasks and coexists with SCF. So, any existing program that calls I\$ReadLn can exploit XSCF's advanced line editing functions.

XSCF File Manager \$60.00

One Screen For The Debugger And Another For The Application, But Only One Keyboard To Share.

How are you debugging? Inventing a new algorithm is pleasure, but debugging it is pain. Here's another reason to envy DOS: Microware provides SrcDbg, a C Source Level Debugger; which is okay, but is not as good as CodeView or TurboDebug.

LSRCDBG makes SrcDbg no better. Sorry, you will see no colorful bars scrolling around or pop-up menus at all, but **LSRCDBG** does a neat thing: the debugger and application run on *separate terminal screens* while sharing the *same keyboard*. Your screen oriented application no longer suffers from debugger messages and command entries.

LSRCDBG works as a "Launcher Program." It sets up necessary environment and spawns the actual debugger (SrcDbg). We know how to use existing resources by fooling the operating system.

LSRCDBG comes with two more utilities. They show you subtle but useful tricks: **SETERM** sets up terminal configuration parameters optimal for different terminals you log in at; **LSHELL** lets any application spawn "*enhanced shell programs*" made by third-parties without patching the program or abandoning Microware's shell.

LSRCDBG SrcDbg Launcher \$50.00

Disk Squeezer Safely Defragments Your Disks.

If your application creates several files and writes a lot of small records randomly, **ERROR #217 (E\$SLF:Segment List Full)** may be an ever-existing headache. This error is due to RBF's logical limitation: RBF can hold up to 48 segments (logically consecutive sectors) per file. Usually these segments are managed by RBF and you don't need to worry about them; however, once your file has reached this limit, you can no longer expand it by even a single byte, even though your disk still has hundreds of megabytes of free space. This is called *file fragmentation*.

Fragmentation degrades disk access performance. Fragmentation means your file contents are scattered on the disk, so the disk drive head has to keep traveling back and forth to make them look contiguous by spending tens of milliseconds at each seek. Not only a few files suffer the fragmentation problem, but also applications like database that make frequent small writes, updates, and deletes on disk may result in *disk fragmentation*, which would eventually cause more file fragmentation.

Disk Squeezer reorganizes your disk contents by repeatedly moving files on it to make files and free areas as contiguous as possible. This process is very safe since **Disk Squeezer** uses only regular I/O system calls; it never attempts to fool the operating system. Even if there's a power failure during a squeezing process, only the file being manipulated may suffer corruption and the rest of your disk is still intact.

Disk Squeezer is compatible with RBF V2.4. Yes, now it can handle disks with sector sizes other than 256 bytes, and the new V2.1 version of **Disk Squeezer** uses up to 30% less memory and runs up to 30% faster than old versions. Of course, **Disk Squeezer** runs on any 68K machine that has V2.2 or later version of OS-9.

Disk Squeezer \$295.00

80 Neat Utilities Ease Your OS-9 Work.

The devTOOL package contains 80 useful utility programs that help your OS-9 application development work, Undelete files, edit disk sectors, look up error messages, dump physical memory, edit the INIT module, etc., etc.

devTOOL \$370.00

Read/Write/Format OS-9 Disks on PC/AT.

OS9MAX reads, writes, and formats OS-9 floppy disks on a PC/AT computer under PC/MS-DOS. A friendly disk shell supports as many as 12 different OS-9 floppy disk formats. Requires an IBM-PC/AT or clone with a 1.2MB (5.25") or 1.44MB (3.5") floppy disk drive and PC/MS-DOS V2.11 or up.

OS9MAX \$550.00

Send check or money order to ARK Systems USA, P.O. Box 23, Santa Clara, CA 95052-0023. CA residents add 8.25% sales tax. Add \$4.00 for ground shipping, or provide us with your FedEx account number for a faster delivery. You may also call one of the following distributors: •Denmark: danelec 3969-0511 •Germany: Datentechnik Reischke 431-805293 •UK: Galactic Industrial (091)3848343, Snowtop Computers (0582)451084 •US: Windsor Consultanting Group (502)454-0054

•All programs run on V2.2~ V2.4 versions of OS-9 without special hardware or software. Exceptions: LSRCDGB requires a secondary terminal which may be output only; OS9MAX requires PC/AT and PC/MS-DOS. •"Maximum of 48 segments per file" applies only to disks with 256-byte logical sector size. •Specifications are subject to change without notice. •Prices are subject to change without notice and valid in the United States only. Foreign distributors may carry different prices. •OS-9 and SrcDbg are trademarks of Microware Systems Corporation. Other product names are generally their respective owners' trademarks.

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DISK•CACHING•FOR•OS-9

ARK Systems USA P.O. Box 23, Santa Clara, CA 95052-0023, USA. Phone: +1 (408) 244-5358/Fax: +1 (408) 244-5395 arkusa@rahul.net

UD-CACHE II makes your OS-9 computer run 2~100 times faster!

UD-CACHE II dramatically improves disk access performance. By placing frequently accessed portions of disks in computer's main memory, UD-CACHE II speeds up program compilation 2 to 3 times and file copying 5 to 20 times on an OS-9 system with a medium speed hard disk, or even up to 100 times on floppy disks.

UD-CACHE II virtually no installation. Thanks to its sophisticated operating system interface. Copying a few files to your system disk and executing a single command makes UD-CACHE II run in a minute or so. No complicated customization or system generation is necessary.

UD-CACHE II adds many more features. As a complete rewrite of its 4-year-old predecessor, UD-CACHE II supports variable sector sizes, automatically mounts alias device mounting for safe operation, uses a single cache buffer for multiple devices for more efficient memory usage, caches ID and bit map sector separately for better performance, employs persistent block and smart sector write algorithms for even faster caching performance, etc.

SPECIFICATIONS

Program Title: UD-CACHE II	Function: RBF disk sector caching
Operating System: OS-9/680x0 V2.2 ~ 2.4	Disk Type: Any type
Number of Cachable Drives: Unlimited	Sector Size: 256~2,048 bytes (variable)
Cache Buffer Size: Any size, multiple of 2KB (minimum 256KB recommended)	
Caching Mode: Write-through and write-back (each drive can choose either mode)	
Cache Buffer Management: 2KB blocks dynamically divided according to sector size	
Cache Buffer Flushing (write-back mode): A daemon process with LRU (Least Recently Used) plus sector persistence	
Price: \$149.00 (single copy) plus shipping and handling (varies with destination and carrier)	
Quantity discounts are available for OEM applications. Inquire.	

UD-CACHE II is distributed worldwide by: • Denmark: danelec 3969-0511; • Germany: Datentechnik Reschke (0431)805293; • Japan: Osque Systems (03)3220-0384 • UK: Galactic Industrial (091)3848343; • US: Windsor Consulting Group (502)454-0054;



ARK Systems USA
P.O. Box 23, Santa Clara, CA95052-0023
Phone: (408)244-5358/Fax:(408)244-5395
Internet: arkusa@rahul.net
CompuServe:74464,1751

•UD-CACHE II runs under V2.2 and later versions of OS-9 on any computer. •Specifications are subject to change without notice.
•Prices are subject to change without notice and valid in the United States only. Foreign distributors may carry different prices. •OS-9 is a trademarks of Microware Systems Corporation. Other product names are generally their respective owners' trademarks.

UD-CACHE II Questions and Answers.

I am using V2.4 OS-9 with RBF caching. Do I still need to use UD-CACHE II?

Yes. The V2.4 RBF file manager *does* cache disk sectors, but its caching is limited to single sector accesses such as file descriptor sectors and it does not cache file sectors. On the other hand, UD-CACHE II caches multiple sector accesses including the ID sector, bit map sectors, file descriptors, files, and directories. The difference is obvious; UD-CACHE II always beats RBF's native caching with significant differences in our benchmark tests.

How fast is UD-CACHE II?

The disk access improvement factor depends on many issues: disk's physical access speed, cache buffer size, and the application. Our benchmarks have resulted in 2 to 3 times faster C compilation and 5 to 20 times faster file copying on a 68030 system with a medium speed hard disk.

Is UD-CACHE II compatible with my OS-9 system?

Yes. UD-CACHE II works fine on any OS-9 computer with any processor, 68000/08/10/20/30/40 or 68ECxxx, as long as it runs V2.2 or later version of OS-9. UD-CACHE II works on ROMed systems and is ROMable, too.

What disk types does UD-CACHE II support?

Any disk type that is currently in use as an RBF device in your OS-9 system. Hard, floppy, removable hard, floptical, magneto optical, etc. with any interface: MFM, IDE, SCSI, SCSI2, ESDI, SMD, etc. UD-CACHE II caches unlimited number of multiple disk drives of different types and interfaces simultaneously.

How much memory does UD-CACHE II use?

The necessary amount of cache buffer memory depends on the application. Typically, 256KB is the minimum and satisfactory to most applications. If your system has plenty of memory, however, we recommend using 1MB.

How complicated is it to install UD-CACHE II?

Not at all. UD-CACHE II has a very sophisticated operating system interface. You don't need to create hardware-specific device descriptors or anything at all. Simply copying a few files to your system disk and executing a single command starts UD-CACHE II.

Alright, how can I buy a copy of UD-CACHE II?

UD-CACHE II is available from ARK Systems USA, Santa Clara, California, as well as through its distributors worldwide. Refer to the other side of this pamphlet for your nearest distributor.

If you'd like to purchase UD-CACHE II directly from ARK, send a check or money order of \$149.00 plus shipping charge (see below) to:

ARK Systems USA, P.O. Box 23, Santa Clara, CA 95052-0023

Shipping to 48 US states: Ground – \$4.00 FedEx – \$11.50

Shipping to foreign countries: Air mail – \$5.00 FedEx – inquire

California residents must add 8.25% sales tax. All payments must be in US funds. Sorry, we do not accept CODs and charge cards. **Do not forget to state your favorite disk type in Microware's disk type code.**

OTHER QUALITY OS-9 PROGRAMS FROM ARK

- **Disk Squeezer:** Re-organizes fragmented disks and files. Eradicates Error #217 and improves overall disk access performance.
 - **XSCF:** Extends the SCF file manager with more powerful line editing and line recalling.
 - **LSrcDbg:** Routes debugger output to a secondary terminal. Eases debugging screen oriented programs.
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